

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 29, 2005. Claims 1 to 31 are pending in the application, of which Claims 1, 11, 16, 25, 30 and 31 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 5 to 12, 14 to 17, 19 to 26 and 28 to 31 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,956,453 (Yaegashi). Claims 4, 13, 18 and 27 were rejected under 35 U.S.C. § 103(a) over Yaegashi in view of U.S. Patent No. 6,348,929 (Acharya). Reconsideration and withdrawal of this rejection are respectfully requested.

The present invention concerns an image processing apparatus for displaying images. The image processing apparatus stores representative frames extracted from a scene along with significance levels. The image processing apparatus may be used to extract and display images from the representative frames having a significance level greater than or equal to an externally designated significance level. A user may then select from the displayed images to play back a scene corresponding to the selected images.

Turning to specific claim language, amended independent Claim 1 is directed to an image processing apparatus which includes a storage device that stores scene information including, at least, data for at least one representative frame extracted from a scene, data for an interval of the scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back. The image processing apparatus further includes a display device that extracts images of

representative frames of the plurality of scenes having the significance level externally designated and above, from the scene information stored in the storage device and concurrently displays the extracted images chronologically; a selection device that receives a selection of one of the concurrently-displayed images of the representative frames on the basis of an external designation; and a playback device that plays back the scenes corresponding to the images of the representative frames selected by the selection device.

Amended Claim 11 is directed to an image processing apparatus comprising a storage device that stores scene information including, at least, data for at least one representative frame extracted from a scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back; a display device that extracts images of the representative frames of the plurality of scenes having the significance level externally designated and above, from the storage device and concurrently displays the extracted images chronologically ; and a selection device that receives a selection of one of the concurrently-displayed representative frames on the basis of an external designation.

In contrast, Yaegashi discloses displaying representative images of scenes and cuts in a hierarchical manner or tree structure. The tree structure may be edited to add, delete and replace an image within the tree structure using an edit function key, and play back a moving image by operating a play-back key. (See Figures 8 to 9 of Yaegashi). However, Yaegashi displays all the representative images in the tree structure on which the editing processing is executed. (See Figure 6B of Yaegashi). However, Yaegashi fails to disclose or suggest extracting images as representative frames from a storage device on the

basis of an externally designated significance level and to concurrently display the extracted images.

Furthermore, in Yaegashi, a plurality of cuts are grouped into a scene, and a plurality of scenes are grouped into a program. The program and each of the cuts and scenes included therein are provided with names thereof, respectively, and arranged in a hierarchical structure. (See Figures 8 to 9 of Yaegashi). In this structure, only the cuts, such as cuts 210, 211 and 212 of Figure 1, include moving images or frames, and the "scene", such as 220 in Figure 1, is a merely a name of a group and thus includes no moving images. That is, in tree structure of the reference of Yaegashi, a moving image is included in only at the "cut" level and no moving image is includes in each of the "scene" and "program" levels. Therefore, Yaegashi fails to disclose or suggest storing scene information including a significance level of the scene of each of a plurality of scenes which allows a plurality of cuts having different significance levels exist that can be extracted together on the basis of a designation of significant level as featured in Claim 1.

Finally, Acharya has been reviewed, but is not seen to add anything of significance to the above-noted deficiencies of Yaegashi. In particular, and as understood by Applicant, Acharya was cited for its alleged disclosure of image compression, which is in any event unrelated to formation of reduced images as claimed in Claims 4, 13, 18 and 27. That is, image compression differs significantly from image reduction, in ways that are understood clearly by those of ordinary skill in the art of image transformations.

In light of the deficiencies of Yaegashi and Acharya as discussed above,

Applicants submit that amended independent Claims 1 and 11 are now in condition for allowance and respectfully request same.

Independent Claims 16 and 25 are corresponding method claims of independent Claims 1 and 11, respectively, and have been now amended in the same manner as the amended independent Claims 1 and 11. Independent Claims 30 and 31 are corresponding medium claims of independent Claims 1 and 11, respectively, and have been also amended in the same manner as the amended independent claims 1 and 11.

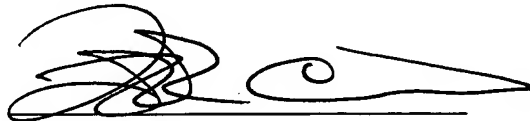
Accordingly, Applicants submit that Claims 16, 25, 30 and 31 are also now in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank L. Cire', with a long horizontal line extending to the right.

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